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ABSTRACT

A study determined the amount of time vocational teachers devote to professional job activities and whether an intensive time management workshop could improve time utilization by vocational teachers. Thirty teachers in each of five vocational areas recorded professional time use in a booklet that was divided into 12 major duty categories and further broken down into 52 separate duty tasks that vocational teachers might perform. Data were collected for two 4-week periods, one in the fall and another in the spring. Half of the subjects participated in an intensive 2-day time management workshop in January. Data showed that teachers worked an average of 55 hours each week. About half of that time was spent teaching day vocational classes; half their professional time was left for other activities. Factors that influenced time use were extended contracts, marital status, office in professional organizations, sex, and school-owned transportation. Teachers who participated in the 2-day workshop responded much differently in the spring data collection study than they did in the fall study. Study of time management made them more aware of time and their effective use of it. (YLB)

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THE INFLUENCE OF TIME MANAGEMENT CONCEPTS

ON

THE PRODUCTIVITY OF VOCATIONAL TEACHERS

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THE INFLUENCE OF TIME MANAGMENT CONCEPTS ON THE PRODUCTIVITY OF VOCATIONAL TEACHERS

Introduction

As a result of the Vocational Education Act of 1963, and succeeding acts and amendments, vocational teachers have been asked to plan and conduct more comprehensive vocational education programs. Occupational experience for secondary students and student organizations have become more prominent as instructional tools to help develop entry-level employment skills.

Vocational teachers have had the responsibility for managing this comprehensive program. As student enrollments have grown, teachers have found they are unable to serve all students to the extent they desire, partially due to lack of time. Teachers, therefore, have begun to search for professional improvement ways and means to become more effective and efficient in their jobs.

The Problem

The problem of this study was twofold. The first part was to determine the amount of time vocational teachers devote to professional job activities. The second part was to determine whether an intensive time management workshop could improve time utilization by vocational teachers.

Objectives

The following objectives were used to guide the study:

1. To determine how vocational teachers utilized their time, in identified duty categories.

2. To compare how teachers in five vocational areas utilized their time.

3. To determine whether an intensive time management workshop would improve time utilization by vocational teachers.

4. To determine whether such factors as marital status, sex, extended contracts influenced how vocational teachers used their time.

Related Literature

Extensive research has been completed by industrial management specialists on time use in industrial settings, but little has been completed in vocational education. It is clear after discussion with management consultants, however, that the time management principles used in industry can be applied to any specific occupational setting, including education.

The recommendations of Business Management expert, Fred Luthans, is that the common principles must be applied to each different occupational area by persons familiar with that occupation. These time management principles are identified in writings by Alec McKenzie (1972), James McCay (1959), Joseph Cooper (1971), and Peter Drucker (1966), and provide the basis for the prescriptive approach used in industry.

Little research has been completed which shows or compares how vocational teachers use their time. A number of studies have been completed in agricultural education, however, which relate to time management. Studies by Roy Dillon (1976 and 1978) and Roland Peterson (1978) are examples of pilot attempts to use teacher time data as a base for teacher improvement. Teachers in Dillon's 1977 study recorded their time for one year on 27 duty categories, and participated in a one-week workshop at the end of each year. The follow-up study two years later showed, for example, that agriculture teachers reduced by one-half the number of hours per month for curriculum planning.

R. L. Cole (1981) compared the average work week of vocational agriculture teachers and administrators. He found that vocational agriculture teachers spent an average work week of between 45 and 65 hours, whereas administrators spent an average work week of between 40 and 45 hours. Another study, conducted in Minnesota by Leske and Peterson (1981) found that vocational agriculture teachers have about 40 percent of their professional time committed to a specific teaching schedule. This leaves them with approximately 60 percent of their time for discretionary use. This study also revealed that first-year teachers spend more hours on the job than do experienced teachers.

Instrument

An advisory committee made up of University of Nebraska vocational teacher educators was used throughout the study to help make critical decisions about the project. Members, representing home economics, business and office, trade and industrial, marketing, and special vocational needs, helped develop a preliminary data collection instrument. A secondary vocational teacher advisory committee was also organized. This committee was used to finalize the data collection instrument.

The data collection instrument consisted of a spiral bound booklet in which teachers could record their use of professional time for a four-week period. The instrument was divided into 12 major duty categories, and further broken down into 52 separate duty tasks that vocational teachers might perform. Teachers recorded how they use their professional time (in 15-minute blocks) for a four-week period in the fall, and another four-week period in the spring. Instructions on how to use the instrument, along with definitions of the various duty categories, were included in the booklet.

Data Source and Sampling Design

The population for this study was a group of selected vocationally approved teachers in Nebraska in the areas of business education, home economics education, marketing and distributive education, industrial education, and special vocational needs. All Nebraska vocational teachers were given an opportunity to participate in the study. A random sample of 30 teachers was selected from those vocational areas where more than 30 persons indicated a willingness to participate. In cases where fewer than 30 persons indicated a willingness to participate in a specific area, all persons were selected. A random sampling technique was also used to select a treatment group of half the subjects to participate in an intensive two-day time management workshop which was held on January 29-30, 1982. Data gathered during the four-week period in the fall were used to determine how time was used by the various vocational areas, and whether significant differences existed between these groups in various duty categories. Data gathered in the spring were used for comparison of fall and spring time use. They were also used to determine whether significant differences existed in various duty categories within the group receiving the treatment. Data in Table I shows the number of participants, by vocational area, who participated in the various phases of study.

Table I

NUMBER OF PARTICIPANTS BY VOCATIONAL AREA, IN THE THREE MAJOR PHASES OF THE STUDY

	Phase of Study		
Vocational Area	Fall Data Collection	Spring Data Collection	Workshop Participants
Home Economics	30	27	10
Business Education	29	26	13
Marketing/Distributive	16	10	2
Industrial Education	22	17	10
Special Vocational Needs	7	4	2
TOTALS	104	84	37

Several statistical techniques were used to analyze the data. Descriptive statistics were used to determine how teachers in the various vocational areas use their time. Duncan's Multiple Range Test for groups with uneven means was applied to determine how the five teaching areas compared in their use of time within each duty category. A multiple regression analysis of variance technique was used on data from the treatment group to determine significant relationships by duty categories of selected variables.

Findings

The findings of this study are many and varied. The descriptive date generated by the study reveal an interesting picture of how vocational teachers use their time. The data in Table II show that teachers worked 219.56 hours during the four-week period, or an average of about 55 hours each week. It is also interesting to note that about half of that time was spent teaching day vocational classes, which left about half their professional time for activities other than teaching day classes.

Table II

TOTAL HOURS AND PERCENT TIME WORKED BY 104
VOCATIONAL TEACHERS IN 12 DUTY CATEGORIES FOR 4 WEEK PERIOD

Duty Category	Total Hours Worked	Percent	(n)
I. TEACHING DAY VOCATIONAL CLASSES	108.63	49.48	104
II. TEACHING NON-VOCATIONAL OR NON-DAY CLASSES	35.01	15.94	40
III. STUDENT SUPERVISION OR EXTRA-CURRICULAR DUTIES	23.94	10.90	98
IV. CONFERENCES AND/OR COUNSELING	14.77	6.59	103
V. VOCATIONAL STUDENT LEADERSHIP ORGANIZATIONS	16.11	7.33	53
VI. OCCUPATIONAL EXPERIENCE PROGRAMS	13.33	6.07	35
VII. CLASSROOM MANAGEMENT	14.58	6.58	103
VIII. CURRICULUM DEVELOPMENT	3.93	1.78	68
IX. ADVISORY COMMITTEES	2.44	1.11	34
X. PROFESSIONAL GROWTH	12.43	5.62	98
XI. TEACHER/STAFF DEVELOPMENT	8.33	3.79	95
XII. PUBLIC RELATIONS AND COMMUNITY ACTIVITIES	12.73	5.79	85
	219.56	100.0	

Do teachers in some vocational areas spend more time doing certain teaching activities than others? Table III provides data which reveal that home economics teachers appear to work more hours per week than other vocational teachers. The data show that home economics teachers worked significantly more hours in teaching day classes, in classroom management, and in teacher/staff development than several of the other areas. Business education teachers worked significantly fewer hours with classroom management than three of the other areas.

Table III

TOTAL HOURS WORKED BY 104 VOCATIONAL TEACHERS
BY VOCATIONAL AREA, IN 12 DUTY CATEGORIES FOR 4 WEEK PERIOD

Duty Category	Total Hours Worked	(n)	Hours Worked By Vocational Area				
			Home Economics	Business Education	Marketing Education	Industrial Education	Special Voc Needs
I. TEACHING DAY-VOCATIONAL CLASSES	108.63	104	128 *	111	93*	92 *	103
II. TEACHING NON-VOCATIONAL OR NON-DAY CLASSES	35.01	40	20	23	26	81	32
III. STUDENT SUPERVISION OR EXTRA-CURRICULAR DUTIES	23.94	98	25	20	26	21	37
IV. CONFERENCES AND/OR COUNSELING	14.77	103	15	15	15	13	16
V. VOCATIONAL STUDENT LEADERSHIP ORGANIZATIONS	16.11	53	15	19	19	5	11
VI. OCCUPATIONAL EXPERIENCE PROGRAMS	13.33	35	.75	11	17	14	5
VII. CLASSROOM MANAGEMENT	14.58	103	19 *	8 *	11*	18 *	17 *
VIII. CURRICULUM DEVELOPMENT	3.93	68	5	3	2	3	6
IX. ADVISORY COMMITTEES	2.44	34	2.3	2	3	4	1.5
X. PROFESSIONAL GROWTH	12.43	98	13	12	13	14	11
XI. TEACHER/STAFF DEVELOPMENT	8.33	95	12	8	8	5 *	4 *
XII. PUBLIC RELATIONS AND COMMUNITY ACTIVITIES	12.73	85	17	11	14	9	7
TOTAL	219.56		249	205	217	200	217

* Significant Difference

Duncans Multiple Range Test

Duty Category I: 1:3;4
VII: 1:2,3
2:1,4,5

XI: 1:4,5

A study of how teachers spread their professional time throughout the week also proved very interesting. Data in Table IV show that, of the total time spent on professional activities, vocational teachers spent approximately 9 percent of that time on weekends. Approximately 20 percent of their time was spent on Mondays, and the percent of work time steadily decreased per day through Friday, where about only 14.5 percent of their work time was spent.

Table IV

PERCENTAGE OF TOTAL PROFESSIONAL TIME SPENT BY DAY

Day	Home Economics	Business Education	Distributive Education	Industrial Education	SVN*	Totals
Sunday	6.37	5.18	5.55	3.73	5.63	5.54
Monday	19.85	20.38	18.95	21.71	20.68	20.25
Tuesday	19.12	20.18	19.89	20.46	18.05	19.67
Wednesday	18.88	19.05	19.32	20.73	19.08	19.36
Thursday	16.18	17.53	16.79	16.80	16.58	16.77
Friday	14.71	14.51	14.40	14.67	15.32	14.64
Saturday	4.40	3.28	5.17	1.95	4.65	3.77

* Special Vocational Needs

As shown in the table, this trend held true in all five vocational areas.

A comparison of the fall and spring data indicates consistency in the use of time. Table V provides a comparison of data from the fall and spring data collection periods. Vocational teachers worked an average of 55 hours per week during the fall, and 55.5 hours per week during the spring. The rather significant differences which occurred in duty categories V and VII were expected. This is because student leadership organizations have more activities and are preparing for state contests in the spring. Classroom management included such activities as preparing local plans, budgets, requisition, ordering supplies, and maintaining inventories, among other things. These activities would also be more intense during the spring data collection period.

Table V

TOTAL HOURS WORKED BY VOCATIONAL TEACHERS IN 12 DUTY CATEGORIES FOR 4 WEEK PERIOD IN SPRING AND FALL

	Duty Category	Fall Total Hours	(n)	Spring Total Hours	(n)
I.	TEACHING DAY VOCATIONAL CLASSES	108.63	104	110.45	84
II.	TEACHING NON-VOCATIONAL OR NON-DAY CLASSES	35.01	40	33.23	32
III.	STUDENT SUPERVISION OR EXTRA-CURRICULAR DUTIES	23.94	98	23.34	78
IV.	CONFERENCES AND/OR COUNSELING	14.77	103	10.93	82
V.	VOCATIONAL STUDENT LEADERSHIP ORGANIZATIONS	16.11	53	22.18	43
VI.	OCCUPATIONAL EXPERIENCE PROGRAMS	13.33	35	13.04	25
VII.	CLASSROOM MANAGEMENT	14.58	103	18.36	83
VIII.	CURRICULUM DEVELOPMENT	3.93	68	4.75	42
IX.	ADVISORY COMMITTEES	2.44	34	2.07	27
X.	PROFESSIONAL GROWTH	12.43	98	10.64	81
XI.	TEACHER/STAFF DEVELOPMENT	8.33	95	8.87	80
XII.	PUBLIC RELATIONS AND COMMUNITY ACTIVITIES	12.73	85	14.43	67
	TOTAL	219.56	104	222.09	84

One of the objectives of this study was to determine whether such factors as marital status, sex, extended contracts, and so forth influence how vocational teachers use their time. Another objective was to determine whether an intensive time management workshop can improve time utilization. The statistical significant relationships shown in Table VI are an attempt to meet these objectives. These relationships are the result of a study of time use by those 37 teachers who participated in the intensive two-day time management workshop.

Data in Table VI indicate that vocational teachers on extended contracts spent significantly more hours on student supervision, conferences and counseling, and working with advisory committees; and, significantly less time on teaching day classes and public relations. Marital status has an effect on how teachers spend their time. Single teachers spent significantly more time teaching day classes, and married teachers spent more time teaching non-vocational or non-day classes, on classroom management, working with advisory committees, and working with public relations. Those teachers who were officers of professional organizations also spent significantly more time on several duty categories. They included teaching non-vocational or non-day classes, working with occupational experience programs, working with advisory committees, working on teacher/staff development, and on public relations.

Males spent significantly more time working on teaching non-vocational classes, student supervision, conferences, classroom management, and curriculum development. Whether instructors had access to school owned transportation for visitations seemed to have a great effect on how they used their time. Those who had school-owned transportation spent significantly more time working on student supervision, conferences, occupational experience programs, classroom management, curriculum development, and teacher/staff development. They spent significantly less time working with advisory committees. Instructors who did not receive extra duty pay for working with vocational student organizations spent significantly more hours in several categories than those who did receive extra duty pay. These categories were teaching non-vocational classes, student supervision, curriculum development, advisory committees, teacher/staff development and public relations. Those teachers who held part-time jobs in addition to their teaching spent significantly less time teaching day classes, and significantly more time teaching non-vocational classes, with student supervision, on classroom management, and working with advisory committees.

Finally, those holding a masters degree worked significantly more hours than those without the masters on duty categories related to non-vocational classes, classroom management, professional growth, and teacher/staff development.

Table VI

STATISTICAL SIGNIFICANT RELATIONSHIPS BY DUTY CATEGORIES FOR SELECTED VARIABLES ON THE POST-TEST, USING AN ANALYSIS WHERE ONE VARIABLE WAS STUDIED WHILE ALL OTHERS WERE HELD CONSTANT

DUTY CATEGORY	VARIABLE															
	Extended Contract		Marital Status		Officer of Prof. Org.		Sex		School Owned* Trans.		Extra Duty** Pay		Hold Part-time Job		Hold Masters Degree	
	Yes	No	M	S	Yes	No	M	F	Yes	No	Yes	No	Yes	No	Yes	No
1		X		X										X		
2			X		X		X					X	X		X	
3	X						X		X			X	X			
4	X						X		X							
5																
6					X				X							
7			X				X		X				X		X	
8							X		X			X				
9	X		X		X					X		X	X			
10															X	
11					X				X			X			X	
12		X	X		X							X				

* Instructor had access to school-owned transportation for student related visitations.

** Instructor received extra duty pay for working with vocational student organization.

Teachers who participated in the two-day workshop responded much differently on the post- or spring data collection study than they did on the pre- or fall study. For comparison, only the first four variables of extended contract, marital status, officer of a professional organization, and sex were used. Table VI data show that there were 20 significant relationships within these variables on the post-test, or spring/data collection. There were only four significant relationships within these same variables on the pre-test, or fall data collection.

Conclusions and Implications of the Study

As a result of the findings of this study, the following conclusions are made:

1. Vocational teachers do not spend equitable amounts of time each day of the week. More effective use of time late in the week might prevent such long work days early in the week.

2. Vocational teachers have a large amount of time each day that they personally control. This indicates that they have much more control over their professional time than is often thought.

3. The instrument developed for this study shows consistency in its evaluation of time use. This instrument can be used by vocational educators to determine how they use their professional time.

4. An intensive study of time management principles, similar to the time management workshop used in this study, is an effective way to change how vocational teachers plan and use time. A study of time management, either in pre- or in-service should help teachers become more aware of time and their effective use of it.

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